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**From:** Kappelman, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=AB505B2FB021469A954A5C082F7E77C3-KAPPELMAN, DAVID]  
**Sent:** 2/2/2017 2:25:29 PM  
**To:** Nguyen, Lyndsey [Nguyen.Lyndsey@epa.gov]; Gaughan, Daniel [Gaughan.Daniel@epa.gov]; Nwosu, Bernard [Ben.Nwosu@WestonSolutions.com]  
**Subject:** RE: Canadian Radium & Uranium Corp. Site - Unvalidated Analytical Results

"Peachy"

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**From:** Nguyen, Lyndsey  
**Sent:** Thursday, February 02, 2017 9:06 AM  
**To:** Kappelman, David <Kappelman.David@epa.gov>; Gaughan, Daniel <Gaughan.Daniel@epa.gov>; Nwosu, Bernard <Ben.Nwosu@WestonSolutions.com>  
**Subject:** Re: Canadian Radium & Uranium Corp. Site - Unvalidated Analytical Results

Sorry 2pm EST, is that ok for everyone?

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**From:** Kappelman, David  
**Sent:** Thursday, February 2, 2017 5:28:48 AM  
**To:** Gaughan, Daniel; Nguyen, Lyndsey; Nwosu, Bernard  
**Subject:** RE: Canadian Radium & Uranium Corp. Site - Unvalidated Analytical Results

Lyndsey did you intend the meeting request to be east coast time or west coast time. I can make either, but if the call is 5:00pm EST then it will probably be a short call since it will be afterhours.

Dave

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**From:** Gaughan, Daniel  
**Sent:** Thursday, February 02, 2017 7:36 AM  
**To:** Nguyen, Lyndsey <Nguyen.Lyndsey@epa.gov>; Nwosu, Bernard <Ben.Nwosu@WestonSolutions.com>  
**Cc:** Kappelman, David <Kappelman.David@epa.gov>  
**Subject:** RE: Canadian Radium & Uranium Corp. Site - Unvalidated Analytical Results

Are we talking at 2:00 East Coast Time or West Coast time?

Dan Gaughan  
On-Scene Coordinator, US EPA Region II  
[gaughan.daniel@epa.gov](mailto:gaughan.daniel@epa.gov)  
732-906-6984 office  
917-613-2153 cell

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**From:** Nguyen, Lyndsey  
**Sent:** Tuesday, January 31, 2017 3:06 PM  
**To:** Nwosu, Bernard <Ben.Nwosu@WestonSolutions.com>; Gaughan, Daniel <Gaughan.Daniel@epa.gov>  
**Cc:** Kappelman, David <Kappelman.David@epa.gov>  
**Subject:** RE: Canadian Radium & Uranium Corp. Site - Unvalidated Analytical Results

We can dial into ERT's conference line. I sent a meeting request with the call-in number and passcode.

Also, Dave and I could we get a copy of the QAPP and Sample Acceptance Form, or any other documents that was sent to the lab detailing how to analyze the samples? We just wanted to get ahead start. These documents will probably answer most of our questions.

Thanks a bunch!

*Lyndsey*

Lyndsey Nguyen  
Environmental Response Team-Las Vegas  
Phone: 702.784.8018  
Cell: 702-373-3756  
Email: [Nguyen.Lyndsey@EPA.gov](mailto:Nguyen.Lyndsey@EPA.gov)

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**From:** Nwosu, Bernard [<mailto:Ben.Nwosu@WestonSolutions.com>]  
**Sent:** Tuesday, January 31, 2017 11:23 AM  
**To:** Gaughan, Daniel <[Gaughan.Daniel@epa.gov](mailto:Gaughan.Daniel@epa.gov)>; Nguyen, Lyndsey <[Nguyen.Lyndsey@epa.gov](mailto:Nguyen.Lyndsey@epa.gov)>  
**Subject:** RE: Canadian Radium & Uranium Corp. Site - Unvalidated Analytical Results

2pm Thursday works for me. Will it be a 3-way call?

*Ben Nwosu*

Senior Project Scientist / Group Leader  
Weston Solutions, Inc.

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**From:** Gaughan, Daniel [<mailto:Gaughan.Daniel@epa.gov>]  
**Sent:** Tuesday, January 31, 2017 2:20 PM  
**To:** Nguyen, Lyndsey <[Nguyen.Lyndsey@epa.gov](mailto:Nguyen.Lyndsey@epa.gov)>; Nwosu, Bernard <[Ben.Nwosu@WestonSolutions.com](mailto:Ben.Nwosu@WestonSolutions.com)>  
**Subject:** RE: Canadian Radium & Uranium Corp. Site - Unvalidated Analytical Results

Thursday at 2 works for me.

Dan Gaughan  
On-Scene Coordinator, US EPA Region II  
[gaughan.daniel@epa.gov](mailto:gaughan.daniel@epa.gov)  
732-906-6984 office  
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**From:** Nguyen, Lyndsey  
**Sent:** Tuesday, January 31, 2017 2:15 PM  
**To:** Nwosu, Bernard <[Ben.Nwosu@WestonSolutions.com](mailto:Ben.Nwosu@WestonSolutions.com)>  
**Cc:** Gaughan, Daniel <[Gaughan.Daniel@epa.gov](mailto:Gaughan.Daniel@epa.gov)>  
**Subject:** RE: Canadian Radium & Uranium Corp. Site - Unvalidated Analytical Results

How about on Thursday? Would 2pm on Thursday work?

*Lyndsey*

Lyndsey Nguyen  
Environmental Response Team-Las Vegas  
Phone: 702.784.8018  
Cell: 702-373-3756  
Email: [Nguyen.Lyndsey@EPA.gov](mailto:Nguyen.Lyndsey@EPA.gov)

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**From:** Nwosu, Bernard [<mailto:Ben.Nwosu@WestonSolutions.com>]  
**Sent:** Monday, January 30, 2017 1:47 PM  
**To:** Nguyen, Lyndsey <[Nguyen.Lyndsey@epa.gov](mailto:Nguyen.Lyndsey@epa.gov)>  
**Cc:** Gaughan, Daniel <[Gaughan.Daniel@epa.gov](mailto:Gaughan.Daniel@epa.gov)>  
**Subject:** Re: Canadian Radium & Uranium Corp. Site - Unvalidated Analytical Results

I will be available all day tomorrow. Please let me know what time is convenient and I will work with it.

Thanks,

**Ben Nwosu**  
**Senior Project Scientist / Group Leader**  
Weston Solutions, Inc.  
RST3/ED2

Sent from my mobile device

On Jan 30, 2017, at 4:44 PM, Nguyen, Lyndsey <[Nguyen.Lyndsey@epa.gov](mailto:Nguyen.Lyndsey@epa.gov)> wrote:

Hi Ben and Dan,

I took a look at the lab report, and I seem to have even more questions for the laboratory. I didn't see in the narrative of the laboratory report any counting times or MDCs that they were trying to reach (e.g. MCLs). I can't really make sense of the data with the huge variability in the uncertainties. I chatted with my buddy, Dave Kappelman (who is the best gamma spectrometry expert of any Health Physicist that I know). He has ideas of how to interpret the data, but he wanted to know a little more of how the samples were taken. I was wondering if we could get on a conference call this week? Do you guys have any time this week?

In general, yes, it looks like TW-1-01, TW-3-01, and TW-3-02 show at a minimum elevated radium (Ra-226 and Ra-228 combined is over the MCL of 5pCi/L) as we suspected.

-Lyndsey

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**From:** Nwosu, Bernard <[Ben.Nwosu@WestonSolutions.com](mailto:Ben.Nwosu@WestonSolutions.com)>  
**Sent:** Thursday, January 26, 2017 7:45:36 AM  
**To:** Gaughan, Daniel; Nguyen, Lyndsey  
**Subject:** RE: Canadian Radium & Uranium Corp. Site - Unvalidated Analytical Results

Hi Dan/Lyndsey,

Before I contact the lab please can you take a quick look at the attached lab report and let me know if the MDC values included in the report will meet your needs as against MDA. I looked at lab reports for prior sampling events and the values were also reported based on MDC.

In addition, I contacted the lab prior to your email to get some clarification regarding ingrowth for aqueous samples and the received the following response:

"The aqueous samples were analyzed using radiochemical methods 903.1 for Ra-226 and 904.0 for Ra-228. The results reported for these two methods are superior. These two methods are performed using ingrowth techniques. For the Ra-226 analysis, the samples were in ingrowth for approximately 5 days. An ingrowth factor was applied to all reported results.

Ra-226 and Ra-228 were also analyzed by 901.1 Gamma Spec. For aqueous samples, the 901.1 method is not as precise for measurement of these two analytes. For this method the concept of ingrowth is not applied for the analysis."

Please let me know if you have further questions.

Thanks,

***Ben Nwosu***

Senior Project Scientist / Group Leader  
Weston Solutions, Inc.

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**From:** Gaughan, Daniel [<mailto:Gaughan.Daniel@epa.gov>]  
**Sent:** Wednesday, January 25, 2017 5:48 PM  
**To:** Nwosu, Bernard <[Ben.Nwosu@WestonSolutions.com](mailto:Ben.Nwosu@WestonSolutions.com)>  
**Cc:** Nguyen, Lyndsey <[Nguyen.Lyndsey@epa.gov](mailto:Nguyen.Lyndsey@epa.gov)>  
**Subject:** Fwd: Canadian Radium & Uranium Corp. Site - Unvalidated Analytical Results

Ben,  
See Lyndsey's email below and let me know if you can answer her questions.  
Thanks,  
Dan

Dan Gaughan  
917-613-2153  
[gaughan.daniel@epa.gov](mailto:gaughan.daniel@epa.gov)

Begin forwarded message:

**From:** "Nguyen, Lyndsey" <[Nguyen.Lyndsey@epa.gov](mailto:Nguyen.Lyndsey@epa.gov)>  
**Date:** January 25, 2017 at 5:23:05 PM EST  
**To:** "Gaughan, Daniel" <[Gaughan.Daniel@epa.gov](mailto:Gaughan.Daniel@epa.gov)>  
**Subject:** RE: Canadian Radium & Uranium Corp. Site - Unvalidated Analytical Results

Howdy Dan,

Ok, I took a look at these and I am trying to find a way to interpret the data. Do you know, or maybe Ben, how long these samples were counted? Was there an MDA (minimal detectable activity) they were trying to reach? Does the lab still have the samples by any chance?

Lyndsey

Lyndsey Nguyen  
Environmental Response Team-Las Vegas  
Phone: 702.784.8018  
Cell: 702-373-3756  
Email: [Nguyen.Lyndsey@EPA.gov](mailto:Nguyen.Lyndsey@EPA.gov)

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**From:** Gaughan, Daniel  
**Sent:** Tuesday, January 17, 2017 7:19 AM  
**To:** Nguyen, Lyndsey <[Nguyen.Lyndsey@epa.gov](mailto:Nguyen.Lyndsey@epa.gov)>  
**Subject:** FW: Canadian Radium & Uranium Corp. Site - Unvalidated Analytical Results

Lyndsey,  
See attached data from Can Rad gw samples. What do we compare these with?

We are still trying to determine gw flow direction. Hopefully we will have that information soon.

I asked Ben to have this gw data validated ASAP.

Dan

Dan Gaughan  
On-Scene Coordinator, US EPA Region II  
[gaughan.daniel@epa.gov](mailto:gaughan.daniel@epa.gov)  
732-906-6984 office  
917-613-2153 cell

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**From:** Nwosu, Bernard [<mailto:Ben.Nwosu@WestonSolutions.com>]  
**Sent:** Tuesday, January 17, 2017 10:13 AM  
**To:** Gaughan, Daniel <[Gaughan.Daniel@epa.gov](mailto:Gaughan.Daniel@epa.gov)>  
**Subject:** Canadian Radium & Uranium Corp. Site - Unvalidated Analytical Results

Good morning Dan,

Attached please find the unvalidated analytical results table and laboratory report for the groundwater sampling event conducted at the Canadian Radium and Uranium Corp. Site on December 14, 2016.

Please let us know what EPA action levels to compare the results with and we can update the data table accordingly. If you have any comments or questions please let me know.

Thanks,

***Ben Nwosu***  
Senior Project Scientist / Group Leader  
Weston Solutions, Inc.  
RST3/ED2

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Edison, New Jersey 08837  
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